(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 9 June 2005 (09.06.2005)

PCT

(10) International Publication Number WO 2005/051407 A1

(51) International Patent Classification⁷: A61K 35/78

(21) International Application Number:

PCT/KR2004/000251

(22) International Filing Date: 9 February 2004 (09.02.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 10-2003-0084329

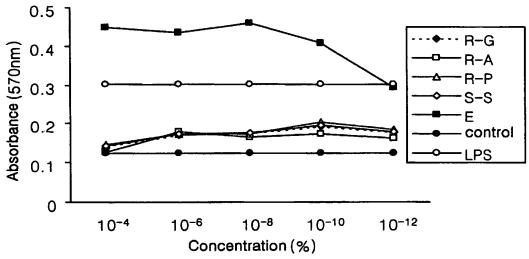
26 November 2003 (26.11.2003) KR

- (71) Applicant (for all designated States except US): REX-GENEBIOTECH CO., LTD. [KR/KR]; 344, Daeya-ri, Samsung-myeon, Eumsung-gun, Chungcheongbuk-do 369-831 (KR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KWON, Suk-Hyung [KR/KR]; Woosung Apt. 21-1105, 1332, Seocho 2-dong, Seocho-gu, Seoul 137-859 (KR). HWANG, Bo-Sik [KR/KR]; LG Village 212-2002, Geumgok-dong,

Gwonseon-gu, Suwon, Gyeonggi-do 441-704 (KR). KIM, Kuk-Hwan [KR/KR]; Sangga 6-ho, 285-3, Sachang-dong, Heungdeok-gu, Cheongju, Chungcheongbuk-do 361-833 (KR). LEE, Seung-Hwan [KR/KR]; 6-6, 33 Bomun 2-ga, Seongbuk-gu, Seoul 136-082 (KR). YOON, Eun-Ju [KR/KR]; Joogong Apt. 104-1306, Panam-dong, Dong-gu, Daejeon 300-130 (KR). LEE, Seung-Hee [KR/KR]; Hyundae 1-cha Apt. 403-901, Yoolyang-dong, Sangdang-gu, Cheongju, Chungcheongbuk-do 360-776 (KR). LEE, Min-Won [KR/KR]; Joogong Apt. 351-306, Banpo-dong, Seocho-gu, Seoul 137-040 (KR). LEE, Do-Ik [KR/KR]; Joogong Apt. 355-401, Banpo-dong, Seocho-gu, Seoul 137-040 (KR). CHOI, Yung-Wook [KR/KR]; Joogong Apt. 76-501, Banpo-dong, Seocho-gu, Seoul 137-040 (KR). JOO, Seong-Soo [KR/KR]; Poongrim Apt. 232-1404, Hwanggol, Yeongtong-dong, Paldal-gu, Suwon, Gyeonggi-do 442-745 (KR). WON, Tae-Joon [KR/KR]; Yonggangsamsungraemian Apt. 109-1502, Yonggang-dong, Mapo-gu, Seoul 121-070 (KR). KANG, Hee-Chul [KR/KR]; Cheolmae Apt. Da-505, Doksan-dong, Geumcheon-gu, Seoul 153-010 (KR).

[Continued on next page]

(54) Title: COMPOSITION FOR PREVENTING AND TREATING CLIMACTERIC SYMPTOMS COMPRISING THE EXTRACT OF SOPHORAE FRUCTUS



(57) Abstract: The present invention relates to a composition for preventing and treating climacteric symptoms comprising the extract of Sophorae Fructus as an effective ingredient. Precisely, the present invention relates to the extract of Sophorae Fructus having an effect of preventing and treating climacteric symptoms, a composition comprising the extract and a method for preventing and treating climacteric symptoms by administering the composition. The extract of Sophorae Fructus of the present invention has activities of promoting the osteoblast proliferation, inhibiting the secretion of bone-absorptive cytokines, promoting the secretion of growth factors involved in bone-reformation, stimulating the generation of nitric oxide in osteoblasts and inhibiting the osteoclast differentiation. In addition, the extract also reduces the concentration of a bone absorption index and inhibits the decrease of calcium content and bone density. Therefore, the extract of Sophorae Fructus of the present invention can be effectively used for the prevention and the treatment of climacteric symptoms including osteoporosis.



7 2005/051407

- (74) Agent: KIM, Seog-Hyun; 9th Floor, Daekyung Building, 120, 2-ka, Taepyung-ro, Chung-ku, Seoul 100-724 (KR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.